

Permit Fact Sheet

General Information

Permit Number:	WI-0065447-02-0
Permittee Name:	Seven Oaks Dairy LLC
Address:	W229 Cnty Rd ZZ
City/State/Zip:	Kaukauna WI 54130
Discharge Location:	Plum Creek within the Plum Creek – Fox River Watershed, and groundwaters of the state

Animal Units					
Animal Type	Current AU		Proposed AU (Note: If all zeroes, expansions are not expected during permit term)		
	Mixed	Individual	Mixed	Individual	Date of Proposed Expansion
Milking and Dry Cows	1750	1788	1932	1973	10/30/2021
Heifers (800 lbs. to 1200 lbs.)	143	130	0	0	
Total	1893	1788	1932	1973	

Facility Description

Seven Oaks Dairy LLC is an existing Concentrated Animal Feeding Operation (CAFO) located in the Township of Buchanan in Outagamie County. Seven Oaks Dairy LLC is owned and operated by Jon Lamers. It currently has 1,380 animal units and based on current herd size Seven Oaks Dairy has approximately 187 days of liquid manure storage, and 59 days of solid manure storage. Seven Oaks Dairy generates 13,772,180 gallons of liquid manure and process wastewater and 3,109 tons of solid manure annually. Seven Oaks Dairy has a total of 2,114.5 acres available for land application of manure and process wastewater. Of this acreage, 2,084 acres are spreadable, 315.3 owned, and 1,799.2 are rented or controlled through contacts.

Sample Point Designation For Animal Waste		
Sample Point Number	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)	
001	Sample point 001 is for liquid manure and process wastewater land applied from waste storage facility 1 (WSF 1). WSF 1 is an earthen lined storage with concrete floor armoring located west of existing feed storage area. The facility has a capacity of 897,040 gallons and was constructed in 1978. This storage accepts manure and process wastewater from the adjacent barn and animal lot. An evaluation was last submitted to the department in 2014 and meets permit requirements.	

Sample Point Designation For Animal Waste		
Sample Point Number	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)	
002	Sample point 002 is for any manure solids removed from bottom of liquid waste storage facility 1. This includes manure-laden sand solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility.	
003	Sample point 003 is for liquid manure and process wastewater land applied from waste storage facility 2 (WSF 2). WSF 2 is earthen lined storage located south of existing feed storage area and serves as the sand settling cell of a three-cell storage system. The facility has a capacity of 4,554,597 gallons and was constructed in 2007. This storage accepts manure and process wastewater from freestall barns and from the milking parlor. WSF 2 was last evaluated in 2014, armoring was installed in 2020.	
004	Sample point 004 is for any manure solids removed from bottom of liquid waste storage facility 2. This includes manure-laden sand solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility.	
005	Sample point 005 is for liquid manure and process wastewater land applied from waste storage facility 3 (WSF 3). WSF 3 is earthen lined storage located south of existing feed storage area and serves as the second cell of a three-cell storage system. The facility has a capacity of 963,228 gallons and was constructed in 2007. This storage accepts manure and process wastewater from WSF 2. WSF 3 was last evaluated in 2014, armoring was installed in 2020.	
006	Sample point 006 is for any manure solids removed from bottom of liquid waste storage facility 3. This includes manure-laden sand solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility.	
007	Sample point 007 is for liquid manure and process wastewater land applied from waste storage facility 4 (WSF 4). WSF 4 is earthen lined storage located south of existing feed storage area and serves as the third cell of a three-cell storage system. The facility has a capacity of 2,818,777 gallons and was constructed in 2009. This storage accepts manure and process wastewater from WSF 3 and from the feed storage runoff controls. WSF 4 was last evaluated in 2014, armoring was installed in 2020.	
008	Sample point 008 is for any manure solids removed from bottom of liquid waste storage facility 4. This includes manure-laden sand solids, manure fiber solids, etc. Representative samples shall be taken from each waste storage facility.	
009	Sample point 009 is for visual monitoring and inspection of concrete dry cow lot and associated runoff control system located to the east of WSF 1. Feedlot runoff and waste is stored in waste storage facility 1. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program.	
010	Sample point 010 is for visual monitoring and inspection of the feed storage area and associated runoff control system. Proper operation and maintenance is required to ensure discharges meet permit requirements. Weekly inspections are required and shall be recorded according to monitoring program.	
011	Sample point 011 is for solid manure sources that are directly land applied and not stored in a waste storage facility. This includes solid sources such as calf hutch manure, maternity pen bedpack, heifer bedpack, steer manure, etc. Representative samples shall be taken for each manure source type.	
012	Sample point 012 is for visual monitoring and inspection of all production site storm water conveyance systems. This includes roof gutter and downspout structures, drainage tile systems, grassed waterways and other diversion systems that transport uncontaminated storm water. Proper operation and maintenance is	

Sample Point Designation For Animal Waste		
Sample Point Number	Sample Point Location, WasteType/sample Contents and Treatment Description (as applicable)	
	required to keep uncontaminated runoff diverted away from manure and process wastewater handling systems. Weekly inspections are required and shall be recorded according to monitoring program.	
013	Sample point 013 is for wastewater land applied from the leachate collection system (WSF 5). WSF 5 consists of a concrete leachate collection basin located to the south of the existing feed storage area, connected to an earthen lined detention basin located to the south of the existing freestall barns. These storages were constructed in 2019, and accepts process wastewater from the existing feed storage area.	

1 Livestock Operations - Proposed Operation and Management

Production Area Discharge Limitations

Beginning on the effective date of the permit, the permittee may not discharge pollutants from the operation's production area (e.g., manure storage areas, outdoor animal lots, composting and leachate containment systems, milking center wastewater treatment/containment systems, raw material storage areas) to navigable waters, except in the event a 25-year, 24-hour rainfall event (or greater) causes the discharge from a structure which is properly designed and maintained to contain a 25-year, 24-hour rainfall event for this location as determined under s. NR 243.04. If an allowable discharge occurs from the production area, state water quality standards may not be exceeded.

Runoff Control

The permit requires control of contaminated runoff from all elements of the production area to prevent a discharge of pollutants to navigable waters in accordance with the Production Area Discharge Limitations and to comply with surface water quality standards and groundwater standards. Beginning on the effective date of this permit, (if needed) interim measures shall be implemented to prevent discharges of pollutants to navigable waters. In addition, permanent runoff control system(s) shall be designed, operated and maintained in accordance with the requirements found in USDA Natural Resources Conservation Service standards and ch. NR 243, Wis. Adm. Code. If any upgrading or modifications to runoff controls are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

Manure and Process Wastewater Storage

The permit requires the operation to have adequate storage for manure and process wastewater and that storage or containment facilities are designed, operated and maintained to prevent overflows and discharges to waters of the state. In order to prevent overflows, the permittee must maintain levels of materials in liquid storage or containment facilities at or below certain levels including a one foot margin of safety that can never be exceeded. If any upgrading or modifications to the storage facilities are necessary, formal engineering plans and specifications must be submitted to the Department for approval.

The permittee currently has approximately 187 months of storage for liquid manure. The permittee must maintain 180 days of storage, unless temporary reductions in required storage are approved by the Department.

Solid Manure Stacking

The operation has proposed to stack solid manure. All stacking of solid manure shall be done in accordance with ch. NR 243, Wis. Adm. Code, which includes restrictions from NRCS Standard 313. Stacking of manure is considered to be part of the production area and is subject to the Production Area Discharge Limitations.

Ancillary Service and Storage Areas

The permittee shall take preventative maintenance actions and conduct visual inspections to minimize pollutant discharges from areas of the operation that are not part of the production area or land application areas. These areas are called ancillary service and storage areas and include access roads, shipping and receiving areas, maintenance areas, refuse piles and CAFO outdoor vegetated areas.

Nutrient Management

With 1,380 animal units, it is estimated that approximately 13,772,180 gallons of liquid manure and process wastewater and 3,109 tons of solid manure and process wastewater will be produced per year. The permittee owns *approximately* 315 acres of cropland and rents about 1,799 acres. Given the rotation commonly used by the permittee, 2,114 acres are available (or open) to receive manure and process wastewater on an annual basis. The permit requires all landspreading of manure and process wastewater be completed in accordance with an approved nutrient management plan. The permit will require sampling and analysis of manure and process wastewater that will be landspread. Landspreading rates must be adjusted based on sample analysis. The permit requires the permittee to maintain a daily log that documents landspreading activities. The permit also requires the submittal of an annual report that summarizes all landspreading activities. Plans must be updated annually to reflect cropping plans and other operational changes. Among the requirements, the plans must include detailed landspreading information including field by field nutrient budgets.

The permittee is required to implement a number of practices to address potential water quality impacts associated with the land application of manure and process wastewater. Among the permit conditions are restrictions on manure ponding, restrictions on runoff of manure and process wastewater from cropped fields, and setbacks from wells and direct conduits to groundwater (e.g., sinkholes, fractured bedrock at the surface). In addition, the permittee must implement a phosphorus based nutrient management plan that addresses phosphorus delivery to surface waters by basing manure and process wastewater applications on soil test phosphorus levels or the Wisconsin Phosphorus index. Additional phosphorus application restrictions apply to fields that are high in soil test phosphorus (>100 ppm).

The permittee must also implement conservation practices when applying manure near navigable waters and their conduits, referred to as the Surface Water Quality Management Area (SWQMA). These practices include a 100-foot setback from navigable waters and their conduits, a 35-foot vegetated buffer adjacent to the navigable water or conduit, or a practice that provides equivalent pollutant reductions equivalent to or better than the 100-foot setback.

In addition, the permittee must comply with restrictions on land application of manure and process wastewater on frozen or snow-covered ground. Included in these restrictions is a prohibition on surface applications of solid manure ($\geq 12\%$ solids) on frozen or snow-covered ground during February and March.

Monitoring and Sampling Requirements

The permittee must submit a monitoring and inspection program that outlines how the permittee will conduct self-inspections to determine compliance with permit conditions. These self-inspections include visual inspections of water lines, diversion devices, storage and containment structures and other parts of the production area. The permit requires periodic inspections and calibrations of landspreading equipment. The permittee must take corrective actions to problems identified inspections or otherwise notify the Department. Samples of manure, process wastewater and soils receiving land applied materials from the operation must also be collected and analyzed.

Sampling Points

The permit identifies the different sources of land applied materials (e.g., manure storage facilities, milking centers, egg-washing facilities) as "Sampling Points." For these Sampling Points, the permittee is required to sample and analyze the different sources for nutrients and other parameters which serve as the basis for determining rates of application for these materials. Other areas are also identified as Sampling Points as a means of identifying them as areas requiring action by the permittee, such as an upgrade or evaluation of a certain system or structure (e.g., runoff control systems), even though sampling is not actually required.

Sample Point Number: 001- WSF 1 Liquids; 003- WSF 2 Liquids; 005- WSF 3 Liquids; 007- WSF 4 Liquids, and 013- Leachate Collection System

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lb/1000gal	2/Month	Grab	
Nitrogen, Available		lb/1000gal	2/Month	Calculated	
Phosphorus, Total		lb/1000gal	2/Month	Grab	
Phosphorus, Available		lb/1000gal	2/Month	Calculated	
Solids, Total		Percent	2/Month	Grab	

1.1.1 Changes from Previous Permit

Sample point language was updated. Sample point 013 was added due to construction during the previous permit term

1.1.2 Explanation of Operation and Management Requirements

Manure must be properly stored and land applied according to the permit and nutrient management plan.

Sample Point Number: 002- WSF 1 Solids; 004- WSF 2 Solids; 006- WSF 3 Solids; 008- WSF 4 Solids; 011- Misc Solids

Monitoring Requirements and Limitations					
Parameter	Limit Type	Limit and Units	Sample Frequency	Sample Type	Notes
Nitrogen, Total		lbs/ton	Quarterly	Grab	
Nitrogen, Available		lbs/ton	Quarterly	Calculated	
Phosphorus, Total		lbs/ton	Quarterly	Grab	
Phosphorus, Available		lbs/ton	Quarterly	Calculated	
Solids, Total		Percent	Quarterly	Grab	

1.1.3 Changes from Previous Permit

Sample point language was updated. Sample point 011 was added to more accurately describe the existing production area

1.1.4 Explanation of Operation and Management Requirements

Solid manure sources must be properly sampled and land applied according to the permit and nutrient management plan.

Sample Point Number: 009- Outdoor Lot ; 010- Feed Storage Area , and 012- Storm Water Runoff Systems

1.1.5 Changes from Previous Permit

Sample point language was updated. Sample point 012 was added to more accurately describe the existing production area

1.1.6 Explanation of Operation and Management Requirements

Proper operation and maintenance is required to ensure unlawful discharges to waters of the state do not occur. Weekly or quarterly inspections are required and shall be recorded according to the monitoring plan.

2 Schedules

2.1 Emergency Response Plan

Required Action	Due Date
Develop Emergency Response Plan: Develop a written Emergency Response Plan within 30 days of permit coverage, available to the Department upon request.	07/01/2021

2.2 Monitoring & Inspection Program

Use of the department's monitoring and inspection program template is encouraged, but optional.

Required Action	Due Date
Proposed Monitoring and Inspection Program: Consistent with the Monitoring and Sampling Requirements subsection, the permittee shall submit a proposed monitoring and inspection program within 60 days of the effective date of this permit.	08/01/2021

2.3 Annual Reports

Submit Annual Reports by January 31st of each year in accordance with the Annual Reports subsection in Standard Requirements.

Required Action	Due Date
Submit Annual Report #1: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2022
Submit Annual Report #2: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2023
Submit Annual Report #3: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2024

Submit Annual Report #4: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2025
Submit Annual Report #5: To include monitoring and inspection results from the previous 12 months, consistent with the requirements of department form 3400-025E.	01/31/2026
Ongoing Annual Reports: Continue to submit Annual Reports until permit reissuance has been completed.	

2.4 Nutrient Management Plan

Submit annual nutrient management plan (NMP) updates by March 31 of each year. Note, in addition to annual NMP updates, submit NMP amendments and substantial revisions to the department for written approval prior to implementation of any changes to the NMP.

Required Action	Due Date
Management Plan Submittal: Submit any necessary updates to the Nutrient Management Plan to meet the conditions outlined in this permit (see conditions in the Livestock Operational and Sampling Requirements section).	
Management Plan Annual Update #1: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2022
Management Plan Annual Update #2: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2023
Management Plan Annual Update #3: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2024
Management Plan Annual Update #4: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2025
Management Plan Annual Update #5: To include actual cropping, tillage, and nutrient application data from the previous calendar or crop year, consistent with the requirements of department for 3400-025D.	03/31/2026
Ongoing Management Plan Annual Updates: Continue to submit Annual Updates to the Nutrient Management Plan until permit reissuance has been completed.	

2.5 Submit Permit Reissuance Application

Required Action	Due Date
Reissuance Application: Submit a complete permit reissuance application 180 days prior to permit expiration.	12/01/2025

2.6 Explanation of Schedules

Emergency Response Plan, Monitoring and Inspection Program – Schedules consistent with permit requirements

Annual Reports, Nutrient Management Plan, Submit Permit Reissuance Application - Schedules consistent with permit requirements.

Other schedule items are required to comply with s. NR 243 and WPDES permit conditions.

Attachments:

Substantial Compliance Determination

Plan Approval Letter(s)

Public Notice

Proposed Expiration Date:

5/30/2026

Prepared By:

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Agricultural Runoff Management Specialist

Date: 4/19/2021